

RCRA FACILITY FACT SHEET

Sinclair Wyoming Refining Company

P.O. Box 277

Sinclair, Wyoming 82334

FACILITY BACKGROUND

The Sinclair Wyoming Refining Company (Sinclair) is an operating petroleum refinery located in the town of Sinclair, Wyoming. The refinery has been operating since 1923 and has had several ownership changes since that time. Sinclair Oil Corporation purchased the refinery from PASCO in 1976. Currently, the refinery has a capacity of refining approximately 85,000 barrels of crude oil per day into fuels and asphalt.

The Environmental Protection Agency (EPA) issued Sinclair a Federal RCRA permit on September 23, 1991, as modified on February 16, 1993 for operation, closure and/or post-closure of two regulated units and facility-wide corrective action. The Federal permit ended when the State of Wyoming issued a permit to Sinclair on February 20, 1997, which was modified on August 29, 2003. Sinclair was issued a renewal permit on June 11, 2007 and modified on September 4, 2008. The permit contains operating and closure requirements for the Aggressive Biological Treatment Unit (ABTU) used to treat the refinery's waste water, and post-closure requirements for the Hazardous Waste Landfill (HWL). The HWL is an unlined unit which received refinery listed wastes until 1988, and it was certified closed in 1991.

ENVIRONMENTAL CONCERNS

Hydrocarbon and metals contamination from refinery operations has been identified in the soils and groundwater in and around the refinery. This includes contamination identified in groundwater beneath the Town of Sinclair located adjacent to and west of the refinery. Twenty-five areas have been identified where past or present wastes were/are managed (referred to as Solid Waste Management Units), and there are an additional 19 areas identified where environmental impacts may be present. The only naturally occurring surface water in the vicinity of the refinery is Sugar Creek which is located approximately one mile northwest of the refinery. Three Evaporation Ponds, encompassing approximately 380 acres, are located east of the operating refinery area. All three ponds have received refinery waste water. Currently, only the middle pond receives the refinery's treated waste water, the east pond has been pumped dry, and the west pond only has water in it after precipitation events.

CORRECTIVE ACTION

In the 1980's and early 1990's, Sinclair implemented interim actions to address immediate concerns related to releases of contamination to the Town of Sinclair. These actions included mitigation of harmful conditions caused by accumulation of hydrocarbon vapors in a residence located near the refinery boundary, recovery of hydrocarbon floating on the groundwater, and monitoring of soil gas conditions in the Town of Sinclair.

Sinclair conducted a RCRA Facility Investigation (RFI) in the early 1990's to determine the nature and extent of contamination on-site and off-site of the refinery's property. A summary of that investigation is included in the Phase I RFI Report submitted on September 18, 1995. Based on that report, the State determined that additional investigation work was necessary to define the extent of contamination and to evaluate the potential impacts to the environment and human and ecological receptors.

The State and Sinclair agreed that while the refinery is operating it would not be feasible to attempt to clean up the refinery to final cleanup levels that would be protective for unrestricted uses of the property. Therefore, until the refinery ceases operations, Sinclair will conduct an interim corrective action that includes:

- Implementation of interim and stabilization measures to address immediate environmental concerns or threats, such as potential releases of contamination to the Town of Sinclair or other off-site areas; and
- Off-site areas must be cleaned up to meet final cleanup objectives that are protective for unrestricted use of the property and ecological receptors, and groundwater must be cleaned up to Maximum Contaminant Levels (MCLs); and
- On-site areas must be cleaned up to levels that are protective for industrial use of the property and ecological receptors, and groundwater use and migration must be controlled; and
- Corrective action related milestones, such as the RCRA Facility Investigation, Corrective Measures Study and Corrective Measures Implementation, are considered interim until such time the refinery closes and final cleanup objectives can be implemented for the active on-site areas.

To address the contamination in groundwater beneath the Town of Sinclair and to halt continued migration of contaminated groundwater beyond the refinery's western boundary, Sinclair constructed a remediation system along the boundary between the refinery and the Town of Sinclair. Construction of the system was complete in 2003. Operation of the system has been successful in removing significant volumes of hydrocarbon from the subsurface and preventing continued migration of groundwater contamination beyond the refinery's western boundary.

Sinclair conducted an assessment in the fall of 2000 to evaluate potential releases of contamination to off-site areas along the southern, northern and eastern refinery property boundaries.

The permit requires clean closure of the ABTU at the time the treatment unit ceases operation. Post-closure monitoring will continue at the HWL under the requirements of the permit. The permit contains corrective action requirements specifically for the ABTU and HWL, if the Department determines there has been a release from the unit(s).

VRP

Sinclair applied to the VRP on February 21, 2003 and was accepted into the program on April 1, 2003. Sinclair and WDEQ signed a Preliminary Remediation Agreement (PRA) in March 2004. The PRA provides the requirements for site characterization to support remedy(s) for the site.

The PRA includes a Framework Plan which provides the management approach for conducting environmental investigations, remedy evaluation and remedy recommendations. The VRP agreements guide site-wide corrective actions including corrective action at existing SWMUs and AOCs.

In 2005, Sinclair conducted environmental sampling and analysis described in Work Plans for higher priority areas and for areas requiring supplemental data to complete risk screening. WDEQ conditionally approved the Higher Priority Remedy Evaluation Report (HPRER) for Voluntary Remediation Program Investigation in April 2008. A Remedy Agreement (RA) and two Remedial Action Work plans (RAP) which are based on the HPRER were signed by all parties on September 4, 2008. The permit was also modified to incorporate the remedy in September 2008. The remedy addresses contamination in the north landfill area (RAP1), the former Dubbs Still (RAP1), the former horizontal flare pit (RAP1), and some areas outside of the refinery boundary that have not been used for refinery operations (RAP2). The remedy includes construction of a CAMU which is used to consolidate and safely manage wastes which will be excavated. The CAMU was constructed in 2012, and loading began in 2013.

Remedial requirements in RAP1 include placement of a soil cap over portions of the High Priority Area, and excavation of other areas to be placed in the CAMU. Sinclair has placed a cap over required portions of the north landfill area, and the rest of the High Priority remedies were completed in 2014 following the completion of the CAMU loading. The CAMU is scheduled to be closed in 2016 once capacity is reached.

In 2007 and 2008, Sinclair implemented the investigation described in the Medium Priority Data Collection Plan (MPDCP) for VRP Investigations. The Medium Priority Areas include the land application treatment area, the evaporation ponds, and the active and historic effluent canal. Based on the result of the MPDCP, Sinclair is currently conducting a risk assessment for the Medium Priority areas. As part of the risk assessment, Sinclair collected additional data in 2011 to ensure the most recent conditions are accounted for prior to completion of the risk assessment. The risk assessment is scheduled to be completed in 2015, and will also result in completion of the RFI for these areas. Based on the results of the risk assessment, an evaluation of remedial alternatives, including approaches to address current conditions (as necessary) will be completed in 2016. WDEQ will select a remedy(ies) and develop a Remedy Agreement by the end of 2016.

After Sinclair finishes the remedial work in the High and Medium Priority Areas, all proposed remedial construction activities will be completed. Upon refinery closure, the entire refinery will undergo cleanup activities in order to achieve unrestricted site use. Until that time, site wide interim activities and corrective action activities in the High and Medium priority areas will continue.

ENVIRONMENTAL INDICATORS

Environmental Indicators (EIs) are an EPA measure used to determine if contamination is being mitigated at or from facilities. RCRA authorized States, such as Wyoming, make the determination whether a facility has met the EIs, and that information is reported to EPA. There are two Environmental Indicators: 1) Human Health Exposures Under Control; and 2) Migration of

Contaminated Groundwater Under Control. Currently, for Sinclair Refinery, the State has determined that Human Health Exposures are under control and that Migration of Contaminated Groundwater is under control.

PUBLIC INTEREST

Throughout the cleanup process, Sinclair Refinery will keep the public informed of corrective action progress at the facility, and the public will have opportunity to comment on corrective action milestones such as the RCRA Facility Investigation, Corrective Measures Study and Corrective Measures Implementation and the corresponding VRP milestones such as Field Sampling Plans, Remedy Evaluation Reports and Remedy Agreements. Public involvement will be conducted through public and town meetings, public notices in area newspapers, and periodic mailings to nearby residents and businesses. All permit and corrective action documents are also available for review by the public at the information repository maintained at the Sinclair branch of the Carbon County Public Library in Sinclair.

FOR MORE INFORMATION

Wyoming Department of Environmental Quality Contact:

Ben Luckey, Project Manager
Solid and Hazardous Waste Division
122 West 25th Street, Herschler Bldg., 4-W
Cheyenne, WY 82002
307-777-6180
e-mail: benjamin.luckey@wyo.gov

Information Repository:

Sinclair Branch of the Carbon County Public Library
Sinclair, WY 82334
307-324-6231